

CLAIMS

What is claimed is:

1. A wordline assembly comprising;
a conductive gate having a sidewall; and
a spacer next to the sidewall of the conductive gate, wherein the spacer comprises silicon, about 2% to about 20% by weight carbon, and about 5% to about 75% by weight oxygen.
2. The wordline assembly of claim 1, wherein the spacer comprises about 20% to about 65% by weight silicon, about 10% to about 20% by weight carbon, about 5% to about 25% by weight oxygen, and about 0% to about 30% by weight nitrogen.
3. The wordline assembly of claim 1, wherein the spacer comprises about 20% to about 65% by weight silicon, about 2% to about 10% by weight carbon, about 40% to about 75% by weight oxygen, and about 0% to about 15% by weight nitrogen.
4. The wordline assembly of claim 1, further comprising a cap layer overlying the conductive gate, wherein the cap layer comprises 20% to about 65% by weight silicon, about 5% to about 25% by weight oxygen, about 10% to about 20% by weight carbon and about 0% to about 30% by weight nitrogen.
5. The wordline assembly of claim 1, further comprising a cap layer overlying the conductive gate, wherein the cap layer comprises about 20% to about 65% by weight silicon, about 2% to about 10% by weight carbon, about 40% to about 75% by weight oxygen, and about 0% to about 15% by weight nitrogen.
6. A capacitor assembly comprising
a storage node extending within an insulative layer, wherein the storage node is next to a layer comprising silicon, about 2% to about 20% by weight carbon and about 5% to about 75%

by weight oxygen;

a second electrode proximate the storage node; and

a dielectric layer between the storage node and the second electrode.

7. The capacitor assembly of claim 6, wherein the storage node is next to a layer comprising about 20% to about 65% by weight silicon, about 0% to about 30% by weight nitrogen, about 10% to about 20% by weight carbon, and about 5% to about 25% by weight oxygen.

8. The capacitor assembly of claim 6, wherein the storage node is next to a layer comprising about 20% to about 65% by weight silicon, about 0% to about 15% by weight nitrogen, about 2% to about 10% by weight carbon, and about 40% to about 75% by weight oxygen.

9. A dynamic random access assembly comprising:
a substrate,
a wordline over the substrate, wherein the wordline has a sidewall;
a first node and a second node proximate the wordline, wherein the first node is in gated electrical connection with the second node via the wordline;
a spacer next to the sidewall of the wordline, wherein the spacer comprises silicon, about 2% to about 20% by weight carbon, and about 5% to about 75% by weight oxygen;
an insulative layer over the spacer, the wordline, the first node and the second node;
a capacitor assembly in electrical connection with the first node; and
a bit line contact in electrical connection with the second node.

10. The dynamic random access assembly of claim 9, wherein the spacer comprises about 20% to about 65% by weight silicon, about 0% to about 30% by weight nitrogen, about

10% to about 20% by weight carbon, and about 5% to about 25% by weight oxygen.

11. The dynamic random access assembly of claim 9, wherein the spacer comprises about 20% to about 65% by weight silicon, about 0% to about 15% by weight nitrogen, about 2% to about 10% by weight carbon, and about 40% to about 75% by weight oxygen.

12. The dynamic random access assembly of claim 9, wherein the dynamic random access assembly further comprises a cap layer overlying the wordline, wherein the cap layer comprises silicon, about 2% to about 20% by weight carbon, and about 5% to about 75% by weight oxygen.

13. The dynamic random access assembly of claim 12, wherein the cap layer comprises about 20% to about 65% by weight silicon, about 0% to about 30% by weight nitrogen, about 10% to about 20% by weight carbon, and about 5% to about 25% by weight oxygen.

14. The dynamic random access assembly of claim 12, wherein the cap layer comprises about 20% to about 65% by weight silicon, about 0% to about 15% by weight nitrogen, about 2% to about 10% by weight carbon, and about 40% to about 75% by weight oxygen.

15. An assembly comprising
a substrate;
a layer comprising silicon, about 2% to about 20% by weight carbon and about 5% to about 75% by weight oxygen; and
a photoresist masking layer.

16. The assembly of claim 15, wherein the layer comprises about 20% to about 65% by weight silicon, about 10% to about 20% by weight carbon, about 5% to about 25% by weight

oxygen and about 0% to about 30% by weight nitrogen.

17. The assembly of claim 15, wherein the layer comprises about 20% to about 65% by weight silicon, about 2% to about 10% by weight carbon, about 40% to about 75% by weight oxygen and about 0% to about 15% by weight nitrogen.